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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,994	03/22/2004	Ari Juhani Peltola	872.0145.U1(US)	1211

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EXAMINER	
CHOW, CHARLES CHIANG	
ART UNIT	**PAPER NUMBER**
2685	

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/805,994	PELTOLA, ARI JUHANI	
	Examiner	Art Unit	
	Charles Chow	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US 2003/0095,532 A1) in view of Toskala et al. (US 2003/0219,037 A1).

Regarding **claim 1**, Kim et al. (Kim) teaches a method to operate user equipment UE in a site selection diversity transmit mode (the uplink channel UL-DPCH transmitted from user equipment UE, Fig. 3A, has feedback field FBI 314 which contains control information for site selection diversity transmission SSDT [0016, 0053], the channel quality indicator CQI [0017]; the selecting of best primary cell [0008-0009]). Kim fails to teach the detecting a case where no base station is transmitting to UE; inserting predetermined values into a received signal and decoding the predetermined values. However, Toskala et al. (Toskala) teaches these features, the UE communicates with node B for rate change request RR, the node B does not send back a request answer RA to UE, no response from node B, base station, the UE may interprets the random data symbol received as a RA [0035], therefore, at UE, the receiver removes RA from downlink DL_DPCH data stream and replaces the RA field with 0's, as the predetermined values, to make the data stream ready for decoder, and directs this modified DL_DPCH data stream to decoder for decoding [0036]. Toskala teaches the improved signaling for uplink scheduling [0001], the flexible controlling of resource for fast uplink with adjustable rate [0006-0008]. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of invention to modify Kim with Toskala's no response in by replacing data field with zeros, such that the UE could decode a data field correctly by replacing a field with zeros, and be quickly scheduled for the uplink with the required rate.

Regarding **claims 2, 4**, Toskala teaches the predetermined values corresponding to zero bits (the replacing RA with zeros [0036]).

Regarding **claim 3**, Kim teaches UE operable in a site selection diversity transmit mode (the uplink channel UL-DPCH transmitted from user equipment UE, Fig. 3A, has feedback field FBI 314 which contains control information for site selection diversity transmission SSDT [0016, 0053], the channel quality indicator CQI [0017]; the means for selecting of best primary cell [0008-0009]). Kim fails to teach the detecting a case where no base station is transmitting to UE; the means for the inserting predetermined values into a received signal; and means for decoding the predetermined values. However, Toskala teaches these features, the UE communicates with node B for rate change request RR, the node B does not send back a request answer RA to UE, no response from node B, base station, the UE may interprets the random data symbol received as a RA [0035], therefore, at UE, the receiver removes RA from downlink DL_DPCH data stream and replaces the RA field with 0's, as the predetermined values, to make the data stream ready for decoder, and directs this modified DL_DPCH data stream to decoder for decoding [0036]. Toskala teaches the improved signaling for uplink scheduling [0001], the flexible controlling of resource for fast uplink with adjustable rate [0006-0008]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Kim with Toskala's no response in

by replacing data field with zeros, such that the UE could decode a data field correctly by replacing a field with zeros, and be quickly scheduled for the uplink with the required rate. Regarding **claim 5**, Kim teaches a method to operate user equipment UE in a site selection diversity transmit mode of a WCDMA system (the uplink channel UL-DPCH transmitted from user equipment UE, Fig. 3A, has feedback field FBI 314 which contains control information for site selection diversity transmission SSDT [0016, 0053], the channel quality indicator CQI [0017]; the selecting of best primary cell [0008-0009], the CDMA system [0003] for high speed data, WCDMA[0005]), the selecting a primary cell (the selecting of best, primary cell [0008-0009], CQI and best cell [0018]), transmitting an identification of the primary cell ID using feedback information FI bits on a dedicated physical control channel DPCCH (the receiving FBI, SSDT in DL_DPDCH only from one Node B, primary cell ID, having good channel condition [0016], the CQI in S_UL_DPCCH from node B for UE to select best cell [0017-0018], Kim fails to teach in response to detecting a case where the selected primary cell fails to transmit a downlink signal to UE; the inserting predetermined sample value into the output of a UE receiver prior to a UE channel decoder and decoding the predetermined sample values as zero bits so as to maintain proper channel decoder operation. However, Toskala teaches these features, the UE communicates with node B for rate change request RR, the node B does not send back a request answer RA to UE, no response from node B, base station, the UE may interprets the random data symbol received as a RA [0035], therefore, at UE, the receiver removes RA from downlink DL_DPCH data stream and replaces the RA field with 0's, as the predetermined values, to make the data stream ready for decoder, and directs this modified DL_DPCH data stream to decoder for

decoding [0036]. Toskala teaches the improved signaling for uplink scheduling [0001], the flexible controlling of resource for fast uplink with adjustable rate [0006-0008]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Kim with Toskala's no response in by replacing data field with zeros, such that the UE could decode a data field correctly by replacing a field with zeros, and be quickly scheduled for the uplink with the required rate.

Regarding **claim 6**, Kim teaches a UE operable in a site selection diversity transmit mode of a wireless communication system (the uplink channel UL-DPCH transmitted from user equipment UE, Fig. 3A, has feedback field FBI 314 which contains control information for site selection diversity transmission SSDT [0016, 0053], the channel quality indicator CQI [0017]; the selecting of best primary cell [0008-0009], the CDMA system [0003]), comprising a radio frequency transmitter and receiver (the UE 111 has transceiver for uplink and downlink signals [0014, 0016]), a decoder having an input coupled to an output of said receiver (the decoder 538, Fig. 5, Fig. 7, is coupled to demodulator 552 of the receiver via Demux 535) and a controller coupled to transceiver (421, Fig. 4) operating to select a primary cell for UE and to transmit, via a transmitter (the selecting of best, primary cell [0008-0009], CQI and best cell [0018]), an identification of the primary cell ID using feedback information FI bits on a dedicated physical control channel DPCCH (the receiving FBI, SSDT in DL_DPDCH only from one Node B, primary cell ID, having good channel condition [0016], the CQI in S_UL_DPCCH from node B for UE to select best cell [0017-0018]. Kim teaches the controller 618 (Fig. 6) for controlling the puncturing data pattern generator 616 for channel decoder 614. Kim fails to teach the being responsive to the

selected primary cell failing to transmit a downlink signal to UE, to insert predetermined sample value into the input of channel decoder and such that decoder decodes the predetermined sample values as zero bits so as to maintain proper channel decoder operation. However, Toskala teaches these features, the UE communicates with node B for rate change request RR, the node B does not send back a request answer RA to UE, no response from node B, base station, the UE may interprets the random data symbol received as a RA [0035], therefore, at UE, the receiver removes RA from downlink DL_DPCH data stream and replaces the RA field with 0's, as the predetermined values, to make the data stream ready for decoder, and directs this modified DL_DPCH data stream to decoder for decoding [0036]. Toskala teaches the improved signaling for uplink scheduling [0001], the flexible controlling of resource for fast uplink with adjustable rate [0006-0008]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Kim with Toskala's no response in by replacing data field with zeros, such that the UE could decode a data field correctly by replacing a field with zeros, and be quickly scheduled for the uplink with the required rate.

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Toskala, and further in view of Kobayashi (US 6,721,564 B1).

Regarding **claim 7**, Kim teaches a wireless communication system comprising code division multiple access system CDMA [0019], and downlink DPCH (DL_DPDCH, col. [0016]). Toskala teaches the detecting that the selected primary cell, node B, fails to transmit the downlink signal [0035]. Kim and Toskala fail to teach the receiver comprises at least one

finger for demodulating a received signal, the assigning at lease one finger to demodulate the downlink signal and determining that too little energy is present in at least one finger that is assigned to demodulate the downlink signal. However, Kobayashi teaches the where said receiver comprises at least one finger for demodulating a received signal (the Rake receiver 25 comprising 4 fingers, Fig. 2, col. 8, lines 8-20), said controller (the microprocessor MPU 13, Fig. 2, col. 43-49, MPU 13 comprising measurement control means, col. 8, lines 42 to col. 9,line 10) assigning the at least one finger to demodulate the downlink signal, and determining that too little energy is present in the at least one finger that is assigned to demodulate the downlink signal (the step 3a, Fig. 3, for the mobile terminal to measure the receiving strength of pilot channel, step 3f, the pilot strength ratio is not equal to reference value, too little energy, col. 9, line 60 to col. 10, line 15). Kobayashi teaches the reliable handover by measuring of the receiving quality for optimizing the selected based station for handover (col. 2, lines 31-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Kim, Toskala with Kobayashi's finger for measuring of the received signal strength, quality, such the handover could be reliably performed for the optimized base station.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

   A. US 2004/0235,434 A1, Peltola (applicant) teaches the similar claimed features (abstract, claims 1-7).

4. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Charles Chow whose telephone number is (703)-306-5615.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703)-305-4385.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202 (Customer Window).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Charles Chow C.C.

November 29, 2004.

Nguyen Vo
12-27-2004

NGUYEN T. VO
PRIMARY EXAMINER